P4/09

CRF Errors Corrected by the STIC S[illegible]oms Branch

Serial Number: 09/622,745 ENTERED

CRF Processing Date: 6/12/2001
Edited by:
Verified by: (STIC staff)

☐ Changed a file from non-ASCII to ASCII

☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line. KW

☐ Edited a format error in the Current Application Data section, specifically:

_____

☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____.

☐ Added the mandatory heading and subheadings for "Current Application Data".

☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.

☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically:

_____

☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:

_____

☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

_____

☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.

☐ Inserted colons after headings/subheadings. Headings edited included:

_____

☐ Deleted extra, invalid, headings used by an applicant, specifically:

_____

☑ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____

☐ Inserted mandatory headings, specifically: _____

☐ Corrected an obvious error in the response, specifically:

_____

☐ Edited identifiers where upper case is used but lower case is required, or vice versa.

☐ Corrected an error in the Number of Sequences field, specifically:

_____

☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____

☐ Other:

_____

_____

_____

_____

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

PCT

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/622,745

DATE: 06/12/2001
TIME: 11:50:04

Input Set : A:\es.txt
Output Set: N:\CRF3\06122001\I622745.raw

Does Not Comply
Corrected Diskette Needed

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      6 <110> APPLICANT: AstraZeneca AB
      8 <120> TITLE OF INVENTION: New methods
     10 <130> FILE REFERENCE: H 2174-1 WO
C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/622,745
C--> 13 <141> CURRENT FILING DATE: 2000-08-22
     15 <160> NUMBER OF SEQ ID NOS: 2
     17 <170> SOFTWARE: PatentIn Ver. 2.0
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ERRORED SEQUENCES

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    154 gctccacttc cctttccctg catctcctca tttctggtcc tcatcactat cccatcagtc 180
    155 ccacatatca tcccggtctg gcaacccctt ctgctcggcc cgactttact actgctgacc 240
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    158 ctcaattact ccctttttctt ggtcccactt tgctgtccag atgatcttat tagcctccct 420
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RAW SEQUENCE LISTING DATE: 06/12/2001
PATENT APPLICATION: US/09/622,745 TIME: 11:50:04

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Output Set: N:\CRF3\06122001\I622745.raw

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RAW SEQUENCE LISTING DATE: 06/12/2001
PATENT APPLICATION: US/09/622,745 TIME: 11:50:04

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Output Set: N:\CRF3\06122001\I622745.raw

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VERIFICATION SUMMARY
PATENT APPLICATION: US/09/622,745

DATE: 06/12/2001
TIME: 11:50:05

Input Set : A:\es.txt
Output Set: N:\CRF3\06122001\I622745.raw

L:12 M:270 C: Current Application Number differs, Replaced Application Number
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:233 M:254 E: No. of Bases conflict, LENGTH:Input:4 Counted:4594 SEQ:2

s.
CC Where differences are found these are annotated as variations
CC together with a note of the overlapping clone name. Note that th
e
CC variation annotation may not be found in the sequence submission

CC corresponding to the overlapping clone, as we submit sequences
CC with only a small overlap as described above.
CC This sequence is the entire insert of clone 271M21.
CC This sequence has been finished according to sequence map criter
ia as
CC follows. An attempt is made to resolve all sequencing problems,
such
CC as compressions and repeats, but not necessarily within known
CC annotated human repeat sequence elements (e.g. Alu). Where the
CC sequence is ambiguous, there is an annotation using the "unsure"
CC feature key.
CC This sequence was generated from part of bacterial clone contigs
of
CC human chromosome 6, constructed in collaboration by the Sanger C
entre

CC chromosome 6 mapping group and Armin Volz & Andreas Ziegler. Fur
ther
CC information can be found at http://www.sanger.ac.uk/HGP/Chr6/
CC 271M21 is from the library RPCI1 constructed at the Roswell Park
. . .

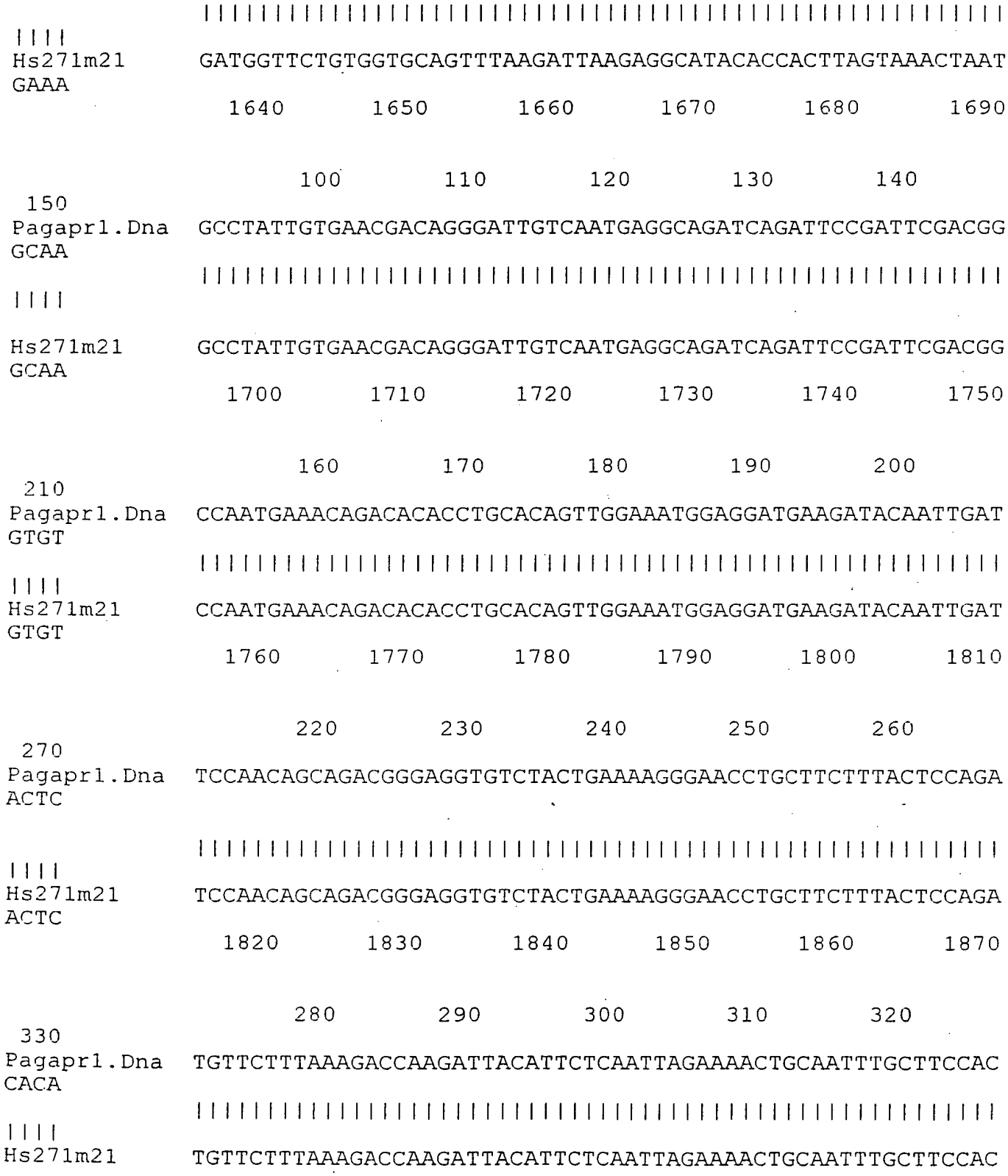
SCORES Init1: 6935 Initn: 15224 Opt: 19389 z-score: 3034.4 E(
): 0
99.7% identity in 3909 bp overlap

```
                                                    10        20
  30
Pagapr1.Dna                                    GATCATATTAATTTGAAGGTGGCGGG
GCAG
                                               ||||||||||||||||||||||||||
||||
Hs271m21      CCCAAGGAAGGAGTCAAGACTGAGAACAACGATCATATTAATTTGAAGGTGGCGGG
GCAG

                1580      1590      1600      1610      1620      1630


                     40        50        60        70        80
  90
Pagapr1.Dna   GATGGTTCTGTGGTGCAGTTTAAGATTAAGAGGCATACACCACTTAGTAAACTAAT
GAAA
```

Namnlös


Hs271m21 GATGGTTCTGTGGTGCAGTTTAAGATTAAGAGGCATACACCACTTAGTAAACTAAT GAAA
1640 1650 1660 1670 1680 1690
100 110 120 130 140 150
Pagapr1.Dna GCCTATTGTGAACGACAGGGATTGTCAATGAGGCAGATCAGATTCCGATTCGACGG GCAA
Hs271m21 GCCTATTGTGAACGACAGGGATTGTCAATGAGGCAGATCAGATTCCGATTCGACGG GCAA
1700 1710 1720 1730 1740 1750
160 170 180 190 200 210
Pagapr1.Dna CCAATGAAACAGACACACCTGCACAGTTGGAAATGGAGGATGAAGATACAATTGAT GTGT
Hs271m21 CCAATGAAACAGACACACCTGCACAGTTGGAAATGGAGGATGAAGATACAATTGAT GTGT
1760 1770 1780 1790 1800 1810
220 230 240 250 260 270
Pagapr1.Dna TCCAACAGCAGACGGGAGGTGTCTACTGAAAAGGGAACCTGCTTCTTTACTCCAGA ACTC
Hs271m21 TCCAACAGCAGACGGGAGGTGTCTACTGAAAAGGGAACCTGCTTCTTTACTCCAGA ACTC
1820 1830 1840 1850 1860 1870
280 290 300 310 320 330
Pagapr1.Dna TGTTCTTTAAAGACCAAGATTACATTCTCAATTAGAAAACTGCAATTTGCTTCCAC CACA
Hs271m21 TGTTCTTTAAAGACCAAGATTACATTCTCAATTAGAAAACTGCAATTTGCTTCCAC

```
CACA
                1880       1890       1900       1910       1920       1930

                     340        350        360        370        380
 390

Pagapr1.Dna   TCCTGACTACTACCGTATAGTTTTCTCTATTCTTTCATTTCCCCCTTCCCCATTCC
TTTA
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      TCCTGACTACTACCGTATAGTTTTCTCTATTCTTTCATTTCCCCCTTCCCCATTCC
TTTA
                1940       1950       1960       1970       1980       1990

                     400        410        420        430        440
 450
Pagapr1.Dna   CTGTACATAAAGTAACTGGTATATGTGCACAAGCATATTACTTTTTTTTTTTAAAA
CTAA
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      CTGTACATAAAGTAACTGGTATATGTGCACAAGCATATTACTTTTTTTTTTTAAAA
CTAA
                2000       2010       2020       2030       2040       2050

                     460        470        480        490        500
 509
Pagapr1.Dna   ACAGCCAATGGTATGTTTTGATTGACATCAAGTGGAGACGGGG-GGGAAAATACTG
ATTC
              |||||||||||||||||||||||||||||||||||||||| || |||||||||
||||
Hs271m21      ACAGCCAATGGTATGTTTTGATTGACATCAAGTGGAGACGGGGCGGAAAAATACTG
ATTC
                2060       2070       2080       2090       2100       2110

           510        520        530        540        550        560
 569
Pagapr1.Dna   TGTGAAAATACCCCCTTTCTCCATTAGTGGCATGCTCATTCAGCTCTTATCTTTAT
ATTC
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      TGTGAAAATACCCCCTTTCTCCATTAGTGGCATGCTCATTCAGCTCTTATCTTTAT
ATTC
                2120       2130       2140       2150       2160       2170
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```
          570        580        590        600        610        620
 629
Pagapr1.Dna  CAGTAAGTTATTTTGCTCTCACTGTTTTAACAACAACAACAAAAAAACAACAACAT
AAAA
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     CAGTAAGTTATTTTGCTCTCACTGTTTTAACAACAACAACAAAAAAACAACAACAT
AAAA
              2180       2190       2200       2210       2220       2230

          630        640        650        660        670        680
 689
Pagapr1.Dna  ATCCTTGCATACCTTGTTCAATTGGAGAATTTTAATGTTTTTCATTTATCATTGTA
AAAC
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     ATCCTTGCATACCTTGTTCAATTGGAGAATTTTAATGTTTTTCATTTATCATTGTA
AAAC
              2240       2250       2260       2270       2280       2290

          690        700        710        720        730        740
 749
Pagapr1.Dna  CAAGGACAATTTTATAACTTTTTTGTACTTAGCTGTTACATGCAGAGCAATCTGTC
TTTA
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     CAAGGACAATTTTATAACTTTTTTGTACTTAGCTGTTACATGCAGAGCAATCTGTC
TTTA
              2300       2310       2320       2330       2340       2350

          750        760        770        780        790        800
 809
Pagapr1.Dna  AGTAGGGATAAATTACTCTAAAACAAAAAAGAATCCTAGATAGTTTTCCCTTCAAG
TCAA
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     AGTAGGGATAAATTACTCTAAAACAAAAAAGAATCCTAGATAGTTTTCCCTTCAAG
TCAA
              2360       2370       2380       2390       2400       2410

          810        820        830        840        850        860
```

```
Pagapr1.Dna   GCGTCTTGTTGTTTAAATAAACTTCTTGTTT-AAAAAAAAAAAAAAGTAAAAAAGAA
AAGT
              |||||||||||||||||||||||||||||| |||||||||||||||||||||||
||||
Hs271m21      GCGTCTTGTTGTTTAAATAAACTTCTTGTTTAAAAAAAAAAAAAAGTAAAAAAGAA
AAGT
                2420      2430      2440      2450      2460      2470

              870       880       890       900       910       920

Pagapr1.Dna   TATGCAACAATTAATGGCCCAGAGGCAATCCTTGTTAACATTTTGATGCATCTTTT
AGCT
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      TATGCAACAATTAATGGCCCAGAGGCAATCCTTGTTAACATTTTGATGCATCTTTT
AGCT
                2480      2490      2500      2510      2520      2530

              930       940       950       960       970       980

Pagapr1.Dna   G-TTTTTTTTTTTTTTTTTTTTTGACTGAGTTTGACTCTTGTCACCCAGGCTGA
AGTG
              | |||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      GTTTTTTTTTTTTTTTTTTTTTTGACTGAGTTTGACTCTTGTCACCCAGGCTGA
AGTG
                2540      2550      2560      2570      2580      2590

              990       1000      1010      1020      1030      1040

Pagapr1.Dna   CAATGGCATGGCATGATCTTGGCTCACTGCAACCTCCGCCTCCCGGGTTCAAGTGA
TTCT
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      CAATGGCATGGCATGATCTTGGCTCACTGCAACCTCCGCCTCCCGGGTTCAAGTGA
TTCT
                2600      2610      2620      2630      2640      2650

             1050      1060      1070      1080      1090      1100

Pagapr1.Dna   CCTGCCTCAGCCTCCTGAGTAGCTAGGATTACGGGCATGCACCACCATGCCTGGCT
AATT
```

```
                                                                    ||||
||||
Hs271m21        CCTGCCTCAGCCTCCTGAGTAGCTAGGATTACGGGCATGCACCACCATGCCTGGCT
AATT

                  2660      2670      2680      2690      2700      2710

                1110      1120      1130      1140      1150      1160

Pagapr1.Dna     TTGTATTTTTAGTAGAGTTGGGGCTTCTCCACACTGGTCAGGCTGGTCTCGAACTC
CCAA
                                                                    ||||
||||
Hs271m21        TTGTATTTTTAGTAGAGTTGGGGCTTCTCCACACTGGTCAGGCTGGTCTCGAACTC
CCAA
                  2720      2730      2740      2750      2760      2770

                1170      1180      1190      1200      1210      1220

Pagapr1.Dna     CCTCAGGTGATAAGGGAAGGGGCACTATTGACATTTATGGTTGGGGCAGAGGTGTA
AGAT
                                                                    ||||
||||
Hs271m21        CCTCAGGTGATAAGGGAAGGGGCACTATTGACATTTATGGTTGGGGCAGAGGTGTA
AGAT
                  2780      2790      2800      2810      2820      2830

                1230      1240      1250      1260      1270      1280

Pagapr1.Dna     ATTCTTCAAAGCACTACCTACATGTTGAAGAATTGTTCCTCACCCAGATTCTCAAA
AGTC
                                                                    ||||
||||
Hs271m21        ATTCTTCAAAGCACTACCTACATGTTGAAGAATTGTTCCTCACCCAGATTCTCAAA
AGTC
                  2840      2850      2860      2870      2880      2890

                1290      1300      1310      1320      1330      1340

Pagapr1.Dna     CCCCAGGACATTCACGTAGTGAAAACCTGTGTTTAATTATCTGAGCCTATAACTTA
ATAC
                                                                    ||||
||||
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Hs271m21      CCCCAGGACATTCACGTAGTGAAAACCTGTGTTTAATTATCTGAGCCTATAACTTA
ATAC
                2900       2910       2920       2930       2940       2950

              1350       1360       1370       1380       1390       1400

Pagapr1.Dna   AGTTTTAAAATTTTTTTTTAAATATACAGTGAACTTTCTAGGAATGCAATTATAGT
TGTG
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      AGTTTTAAAATTTTTTTTTAAATATACAGTGAACTTTCTAGGAATGCAATTATAGT
TGTG
                2960       2970       2980       2990       3000       3010

              1410       1420       1430       1440       1450       1460

Pagapr1.Dna   TGTAAAATTAGGGAAAATTAACTTTGCTACCAAGAGTTGTTCAACATTTTGTTAAA
TCAC
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      TGTAAAATTAGGGAAAATTAACTTTGCTACCAAGAGTTGTTCAACATTTTGTTAAA
TCAC
                3020       3030       3040       3050       3060       3070

              1470       1480       1490       1500       1510       1520

Pagapr1.Dna   TTCATTGATGGCAACATGCTGGAGGTAGTTGAGTCACCAACTCAGCACCTGGATCA
GCCT
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      TTCATTGATGGCAACATGCTGGAGGTAGTTGAGTCACCAACTCAGCACCTGGATCA
GCCT
                3080       3090       3100       3110       3120       3130

              1530       1540       1550       1560       1570       1580

Pagapr1.Dna   GTGTTGGTAGCAGTTTCATCCCCGTGGTTCTGTGAATAGGTGGAAGCATCTGCTTA
CTCC
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      GTGTTGGTAGCAGTTTCATCCCCGTGGTTCTGTGAATAGGTGGAAGCATCTGCTTA
CTCC
                3140       3150       3160       3170       3180       3190
```

```
                1590        1600        1610        1620        1630        1640
Pagapr1.Dna     ATCAGGACTTCTAGGGTAGTCGGGCCTTGGCACTCACACATTAAAATACTGTTTAT
GTTA
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        ATCAGGACTTCTAGGGTAGTCGGGCCTTGGCACTCACACATTAAAATACTGTTTAT
GTTA
                  3200        3210        3220        3230        3240        3250

                1650        1660        1670        1680        1690        1700
Pagapr1.Dna     TTTTATTGCAAGTTACTTTTCTTTCATTTCCCCTTTACGTTACAGAAAGGGAAGCA
TTTT
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        TTTTATTGCAAGTTACTTTTCTTTCATTTCCCCTTTACGTTACAGAAAGGGAAGCA
TTTT
                  3260        3270        3280        3290        3300        3310

                1710        1720        1730        1740        1750        1760
Pagapr1.Dna     GCTTTCTGTTTAAAGTTGTGTATGTAGGTAGGTTATATCATCTAWGACTTTCTCTC
CCTC
                ||||||||||||||||||||||||||||||||||||||||||:||||||||||||
||||
Hs271m21        GCTTTCTGTTTAAAGTTGTGTATGTAGGTAGGTTATATCATCTATGACTTTCTCTC
CCTC
                  3320        3330        3340        3350        3360        3370

                1770        1780        1790        1800        1810        1820
Pagapr1.Dna     CTTCCCTTTCTTTTTGTTTGAGATGGAGTCTTGCTCTGTCACCCAGGCTGGAGTGC
AGTG
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        CTTCCCTTTCTTTTTGTTTGAGATGGAGTCTTGCTCTGTCACCCAGGCTGGAGTGC
AGTG
                  3380        3390        3400        3410        3420        3430

                1830        1840        1850        1860        1870        1880
```

```
Pagapr1.Dna  GTGCGATCTTGGCTCACTGCAACCTCTGCCTCCCGGGTTCAAGCGATTCTGGTGTC
TCAG

             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     GTGCGATCTTGGCTCACTGCAACCTCTGCCTCCCGGGTTCAAGCGATTCTGGTGTC
TCAG
               3440       3450       3460       3470       3480       3490

            1890       1900       1910       1920       1930       1940

Pagapr1.Dna  CTGGGATTACAGGCGCACACCATCACACCACGCTAATTTTTCTATTTTTAGTAGAG
ATGG

             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     CTGGGATTACAGGCGCACACCATCACACCACGCTAATTTTTCTATTTTTAGTAGAG
ATGG
               3500       3510       3520       3530       3540       3550

            1950       1960       1970       1980       1990       2000

Pagapr1.Dna  GGTTTCGCCATGCTGGCCAGGCCAGGCTGGTCTCAAACTCCTGAGCTCAAGTGATC
AGTC

             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     GGTTTCGCCATGCTGGCCAGGCCAGGCTGGTCTCAAACTCCTGAGCTCAAGTGATC
AGTC
               3560       3570       3580       3590       3600       3610

            2010       2020       2030       2040       2050       2060

Pagapr1.Dna  CGCCTCGGCCTCCCAAAGTTCTGGGATTTCAGGCGTGAGCCTCATCTATGAATCTC
AATT

             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     CGCCTCGGCCTCCCAAAGTTCTGGGATTTCAGGCGTGAGCCTCATCTATGAATCTC
AATT
               3620       3630       3640       3650       3660       3670


            2070       2080       2090       2100       2110       2120

Pagapr1.Dna  TAGGACAGTAAAAGTGTCATTACAAAAATATTTATTGTAAAAAAGGGTTGGAGGTT
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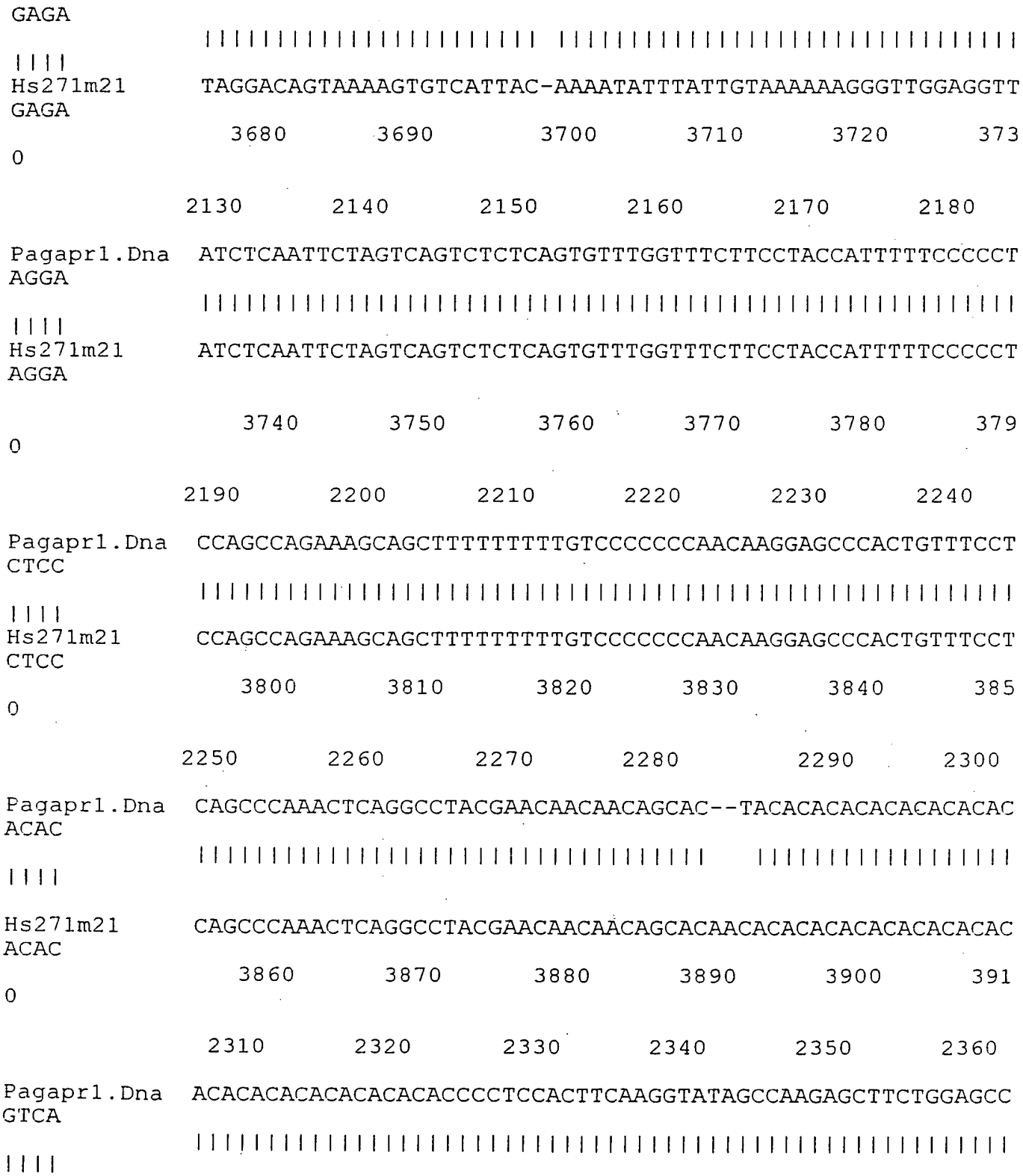
GAGA
Hs271m21 TAGGACAGTAAAAGTGTCATTAC-AAAATATTTATTGTAAAAAAGGGTTGGAGGTT
GAGA
3680 3690 3700 3710 3720 373
0
2130 2140 2150 2160 2170 2180
Pagapr1.Dna ATCTCAATTCTAGTCAGTCTCTCAGTGTTTGGTTTCTTCCTACCATTTTTCCCCCT
AGGA
Hs271m21 ATCTCAATTCTAGTCAGTCTCTCAGTGTTTGGTTTCTTCCTACCATTTTTCCCCCT
AGGA
3740 3750 3760 3770 3780 379
0
2190 2200 2210 2220 2230 2240
Pagapr1.Dna CCAGCCAGAAAGCAGCTTTTTTTTTGTCCCCCCCCAACAAGGAGCCCACTGTTTCCT
CTCC
Hs271m21 CCAGCCAGAAAGCAGCTTTTTTTTTGTCCCCCCCCAACAAGGAGCCCACTGTTTCCT
CTCC
3800 3810 3820 3830 3840 385
0
2250 2260 2270 2280 2290 2300
Pagapr1.Dna CAGCCCAAACTCAGGCCTACGAACAACAACAGCAC--TACACACACACACACACAC
ACAC
Hs271m21 CAGCCCAAACTCAGGCCTACGAACAACAACAGCACAACACACACACACACACACAC
ACAC
3860 3870 3880 3890 3900 391
0
2310 2320 2330 2340 2350 2360
Pagapr1.Dna ACACACACACACACACACCCCTCCACTTCAAGGTATAGCCAAGAGCTTCTGGAGCC
GTCA

```
Hs271m21        ACACACACACACACACACCCCTCCACTTCAAGGTATAGCCAAGAGCTTCTGGAGCC
GTCA

                   3920       3930       3940       3950       3960       397
0

                  2370       2380       2390       2400       2410       2420

Pagapr1.Dna     AAAAGGTCTGTACCTGCTGTCTTTAGAGCTTCCAGTTTGCCCTTGGTCAAGAAATA
CTGT

                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        AAAAGGTCTGTACCTGCTGTCTTTAGAGCTTCCAGTTTGCCCTTGGTCAAGAAATA
CTGT

                   3980       3990       4000       4010       4020       403
0

                  2430       2440       2450       2460       2470       2480

Pagapr1.Dna     TTGCTAGGCTCTGCTGGAGTACATCAGGTAATACTGGCTTCTAAACCACCCTGAGG
TTCT

                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        TTGCTAGGCTCTGCTGGAGTACATCAGGTAATACTGGCTTCTAAACCACCCTGAGG
TTCT

                   4040       4050       4060       4070       4080       409
0

                  2490       2500       2510       2520       2530       2540


Pagapr1.Dna     TTTCTCTTGTCCTTTTACTCCCTTCGTACTTCAATTTCTCTCCTTGATGTCCCCCT
CCCT

                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        TTTCTCTTGTCCTTTTACTCCCTTCGTACTTCAATTTCTCTCCTTGATGTCCCCCT
CCCT

                   4100       4110       4120       4130       4140       415
0

                  2550       2560       2570       2580       2590       2600

Pagapr1.Dna     GTTTTGTTTTTTGCCTCCAATCCGTTCTGCGCGTTCCCTGCAGAGCAGGCGAGTAG
CAAT

                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        GTTTTGTTTTTTGCCTCCAATCCGTTCTGCGCGTTCCCTGCAGAGCAGGCGAGTAG
CAAT

                   4160       4170       4180       4190       4200       421
```

```
0

                 2610       2620       2630       2640       2650       2660

Pagapr1.Dna      GCTGCTGGACCATGGAGCTGCTCTAGTCTCCCAGAAATCTCTTCTACACCCAACCC
TTCT
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21         GCTGCTGGACCATGGAGCTGCTCTAGTCTCCCAGAAATCTCTTCTACACCCAACCC
TTCT
                    4220       4230       4240       4250       4260       427
0

                 2670       2680       2690       2700       2710       2720

Pagapr1.Dna      TGCGCTTAGGTGGTCCTCAGTCCCCCTCCCCCACCTCCTTCTGACCCAGGCTTCTT
TCTC
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21         TGCGCTTAGGTGGTCCTCAGTCCCCCTCCCCCACCTCCTTCTGACCCAGGCTTCTT
TCTC

                    4280       4290       4300       4310       4320       433
0

                 2730       2740       2750       2760       2770       2780

Pagapr1.Dna      GCCCTCCGGTCGCAGTTCTCCTGGGCATCTGCCTCTGCCTCTCTCCTCTCACCCGG
ATCT
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21         GCCCTCCGGTCGCAGTTCTCCTGGGCATCTGCCTCTGCCTCTCTCCTCTCACCCGG
ATCT
                    4340       4350       4360       4370       4380       439
0

                 2790       2800       2810       2820       2830       2840

Pagapr1.Dna      AGGGCTGCCTTCTCTTTGTGCAGCCGTCTTTCTCCACCTTCATCCCAGACTCCCTG
TCTC
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||

Hs271m21         AGGGCTGCCTTCTCTTTGTGCAGCCGTCTTTCTCCACCTTCATCCCAGACTCCCTG
TCTC
                    4400       4410       4420       4430       4440       445
0
```

```
                2850       2860       2870       2880       2890       2900

Pagapr1.Dna     AGCGCCAGCTCCTCTGCCTTTGGCTCGGGTTCCCTCTCCCCCACCCCAGCTTCCAG
TTGT
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        AGCGCCAGCTCCTCTGCCTTTGGCTCGGGTTCCCTCTCCCCCACCCCAGCTTCCAG
TTGT
                  4460       4470       4480       4490       4500       451
0

                2910       2920       2930       2940       2950       2960

Pagapr1.Dna     TTGGCCCGCAGGTCCCTCGGCAGTGACCGGCGCCCCCCGACGAGTGCGTGTGCACC
AGGG
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        TTGGCCCGCAGGTCCCTCGGCAGTGACCGGCGCCCCCCGACGAGTGCGTGTGCACC
AGGG
                  4520       4530       4540       4550       4560       457
0

                2970       2980       2990       3000       3010       3020

Pagapr1.Dna     CACCTCCCTCTCCCCCACCTCTCAGCCCCGCGCCTCTCCACCGCCCGCCCCACCGC
GCTG
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        CACCTCCCTCTCCCCCACCTCTCAGCCCCGCGCCTCTCCACCGCCCGCCCCACCGC
GCTG
                  4580       4590       4600       4610       4620       463
0

                3030       3040       3050       3060       3070       3080

Pagapr1.Dna     TGGGCGGTCCAGGGCGGGGCTGGGATCCGGGGCGGCTCCCGGGGCTCGGGTTGTGG
GAGG
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        TGGGCGGTCCAGGGCGGGGCTGGGATCCGGGGCGGCTCCCGGGGCTCGGGTTGTGG
GAGG
                  4640       4650       4660       4670       4680       469
0

                3090       3100       3110       3120       3130       3140

Pagapr1.Dna     CGCCCTCTCCCCGGTCTTCCCCTCTCTTCCCCCCGCCCTGCCTTCCCTTGCACCCT
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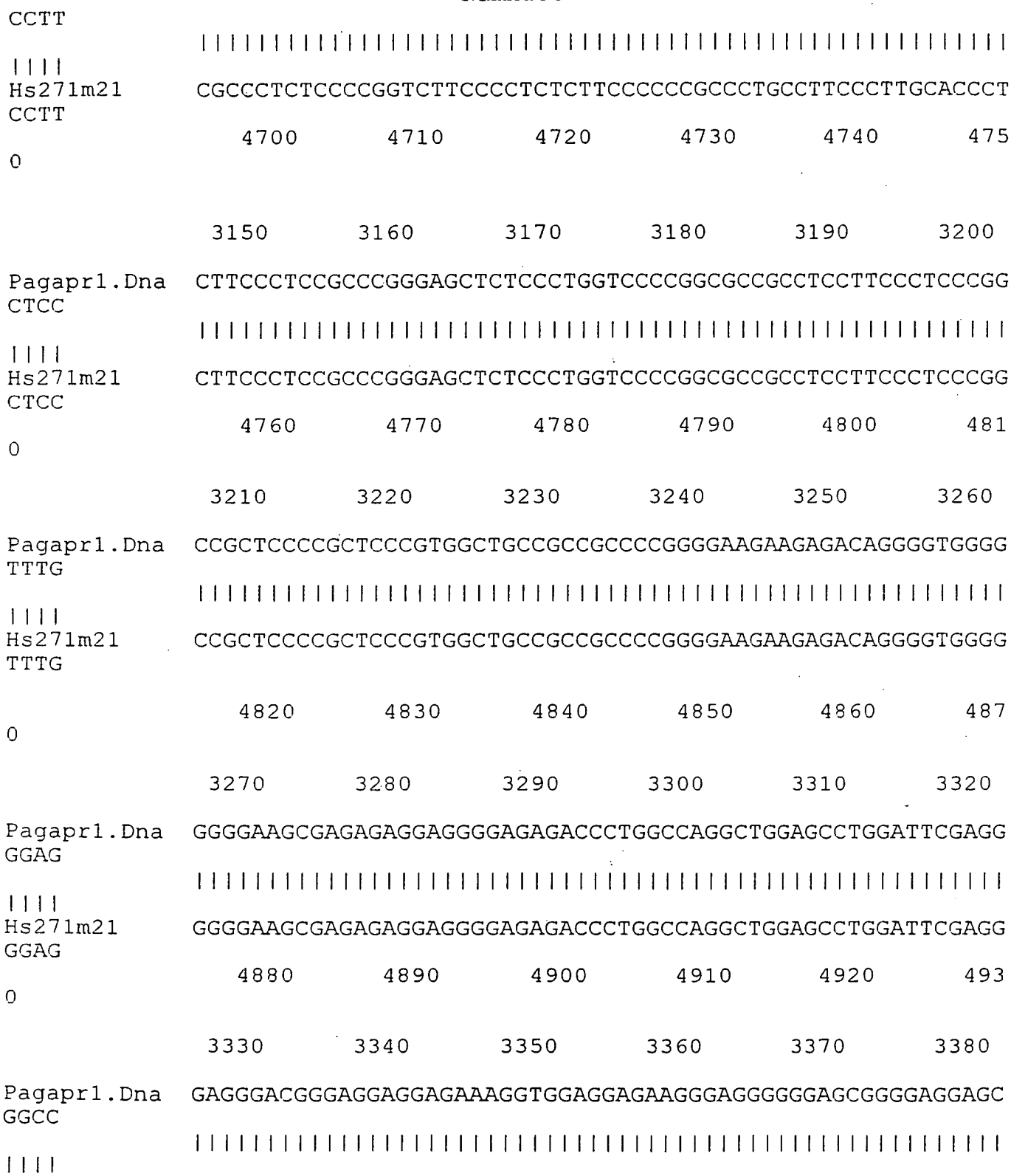
CCTT
Hs271m21 CGCCCTCTCCCCGGTCTTCCCCTCTCTTCCCCCCGCCCTGCCTTCCCTTGCACCCT
CCTT
4700 4710 4720 4730 4740 475
0
3150 3160 3170 3180 3190 3200
Pagapr1.Dna CTTCCCTCCGCCCGGGAGCTCTCCCTGGTCCCCGGCGCCGCCTCCTTCCCTCCCGG
CTCC
Hs271m21 CTTCCCTCCGCCCGGGAGCTCTCCCTGGTCCCCGGCGCCGCCTCCTTCCCTCCCGG
CTCC
4760 4770 4780 4790 4800 481
0
3210 3220 3230 3240 3250 3260
Pagapr1.Dna CCGCTCCCCGCTCCCGTGGCTGCCGCCGCCCCGGGGAAGAAGAGACAGGGGTGGGG
TTTG
Hs271m21 CCGCTCCCCGCTCCCGTGGCTGCCGCCGCCCCGGGGAAGAAGAGACAGGGGTGGGG
TTTG
4820 4830 4840 4850 4860 487
0
3270 3280 3290 3300 3310 3320
Pagapr1.Dna GGGGAAGCGAGAGAGGAGGGGAGAGACCCTGGCCAGGCTGGAGCCTGGATTCGAGG
GGAG
Hs271m21 GGGGAAGCGAGAGAGGAGGGGAGAGACCCTGGCCAGGCTGGAGCCTGGATTCGAGG
GGAG
4880 4890 4900 4910 4920 493
0
3330 3340 3350 3360 3370 3380
Pagapr1.Dna GAGGGACGGGAGGAGGAGAAAGGTGGAGGAGAAGGGAGGGGGGAGCGGGGAGGAGC
GGCC

```
Hs271m21        GAGGGACGGGAGGAGGAGAAAGGTGGAGGAGAAGGGAGGGGGGAGCGGGGAGGAGC
GGCC

                   4940       4950       4960       4970       4980       499
0

                  3390       3400       3410       3420       3430       3440

Pagapr1.Dna     GGGCCTGGGGCCTTGAGGCCCGGGGAGAGCCGGGGAGCCGGGCCCGCGCGCCGAGG
TAAG

                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        GGGCCTGGGGCCTTGAGGCCCGGGGAGAGCCGGGGAGCCGGGCCCGCGCGCCGAGG
TAAG

                   5000       5010       5020       5030       5040       505
0

                  3450       3460       3470       3480       3490       3500

Pagapr1.Dna     AGCCAGGGCCCCGGGTTAGCAGGGCTCGGAGAGGGGGCGCGCGGCGTGGTGGGGGA
GGGG

                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        AGCCAGGGCCCCGGGTTAGCAGGGCTCGGAGAGGGGGCGCGCGGCGTGGTGGGGGA
GGGG

                   5060       5070       5080       5090       5100       511
0

                  3510       3520       3530       3540       3550       3560

Pagapr1.Dna     GCAGTGGGCGCAGGGCCCAGCTGGGGGAAGCGGGGCTGGGGGAGAGGAGGAACCGC
GGGG

                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        GCAGTGGGCGCAGGGCCCAGCTGGGGGAAGCGGGGCTGGGGGAGAGGAGGAACCGC
GGGG

                   5120       5130       5140       5150       5160       517
0

                  3570       3580       3590       3600       3610       3620


Pagapr1.Dna     ATGGAATCGGGGAGCGCTGAGGCGGCCGATGCCGGGAGCGTGGGTAAGCCAGGCTT
CTGC

                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        ATGGAATCGGGGAGCGCTGAGGCGGCCGATGCCGGGAGCGTGGGTAAGCCAGGCTT
CTGC
```

```
                    5180       5190       5200       5210       5220       523
0

                   3630       3640       3650       3660       3670       3680

Pagapr1.Dna        GAGCCGCGGGGGCCGGGGGAGAGGAGGTGGTGAGAGGTGGAGT-CCGGGAGGGTTG
GGGG
                   |||||||||||||||||||||||||||||||||||||||||| ||||||||||||
||||
Hs271m21           GAGCCGCGGGGGCCGGGGGAGAGGAGGTGGTGAGAGGTGGAGTCCCGGGAGGGTTG
GGGG
                    5240       5250       5260       5270       5280       529
0

                   3690       3700       3710       3720       3730       3740

Pagapr1.Dna        CCGAGGGAGGCAGGAGGAGGGTGGGGACAGGCTTTCTCTCCTCCTCTCCCCCCACC
CCGC
                   ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21           CCGAGGGAGGCAGGAGGAGGGTGGGGACAGGCTTTCTCTCCTCCTCTCCCCCCACC
CCGC
                    5300       5310       5320       5330       5340       535
0

                   3750       3760       3770       3780       3790       3800

Pagapr1.Dna        GCGGGGCTCCGCCCCCGCCTCCTCCGCGGGGCGCTCTCTTGGTCCCCAGGCTGAGC
CCGG
                   ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21           GCGGGGCTCCGCCCCCGCCTCCTCCGCGGGGCGCTCTCTTGGTCCCCAGGCTGAGC
CCGG
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0

                   3810       3820       3830       3840       3850       3860

Pagapr1.Dna        TCGGAGCCTGCGAGGCAACCGGCAAGAGGTCGAGTAGTCTCCGGGTGCGGGCCGCG
CCGG
                   ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21           TCGGAGCCTGCGAGGCAACCGGCAAGAGGTCGAGTAGTCTCCGGGTGCGGGCCGCG
CCGG
                    5420       5430       5440       5450       5460       547
0
```

Namnlös

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                    3870        3880        3890        3900

Pagapr1.Dna   CGGGGCTCGGTCCAGTCCTCATGGCCGCCTCTCACTTAG

              |||||||||||||||||||||||||||||||||||||

Hs271m21      CGGGGCTCGGTCCAGTCCTCATGGCCGCCTCTCACTTAGATGTTGCTGCTGCTGCT
ACTG

                 5480        5490        5500        5510        5520        553
0

Hs271m21      GCGCCACTCTTCCTCCGCCCCCCGGGCGCGGGCGGGGCGCAGACCCCCAACGCCAC
CTCA

                 5540        5550        5560        5570        5580        559
0
```

```
CC   During sequence assembly data is compared from overlapping clone
s.
CC   Where differences are found these are annotated as variations
CC   together with a note of the overlapping clone name. Note that th
e
CC   variation annotation may not be found in the sequence submission
CC   corresponding to the overlapping clone, as we submit sequences
CC   with only a small overlap as described above.
CC   This sequence is the entire insert of clone 271M21.
CC   This sequence has been finished according to sequence map criter
ia as
CC   follows. An attempt is made to resolve all sequencing problems,
such

CC   as compressions and repeats, but not necessarily within known
CC   annotated human repeat sequence elements (e.g. Alu). Where the
CC   sequence is ambiguous, there is an annotation using the "unsure"
CC   feature key.
CC   This sequence was generated from part of bacterial clone contigs
 of
CC   human chromosome 6, constructed in collaboration by the Sanger C
entre
CC   chromosome 6 mapping group and Armin Volz & Andreas Ziegler. Fur
ther
CC   information can be found at http://www.sanger.ac.uk/HGP/Chr6/
CC   271M21 is from the library RPCI1 constructed at the Roswell Park
 . . .


SCORES      Init1: 22943  Initn: 22943  Opt: 22943 z-score: 10976.2 E
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  99.9% identity in 4594 bp overlap

                                                    10        20
  30
Pagapr2.Dna                                    ATGTTGCTGCTGCTGCTACTGGCGCC
ACTC
                                               ||||||||||||||||||||||||||
||||
Hs271m21     GTCCAGTCCTCATGGCCGCCTCTCACTTAGATGTTGCTGCTGCTGCTACTGGCGCC
ACTC
                5490      5500      5510      5520      5530      55
40

                    40        50        60        70        80
  90
Pagapr2.Dna  TTCCTCCGCCCCCCGGGCGCGGGCGGGGCGCAGACCCCCAACGCCACCTCAGAAGG
TGCA
```

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                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        TTCCTCCGCCCCCCGGGCGCGGGCGGGGCGCAGACCCCCAACGCCACCTCAGAAGG
TGCA
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00
                       100        110        120        130        140
 150
Pagapr2.Dna     TCCTTCTTCGACGACCTCCGGCCCTCCTTCGCTCCACTTCCCTTTCCCTGCATCTC
CTCA
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        TCCTTCTTCGACGACCTCCGGCCCTCCTTCGCTCCACTTCCCTTTCCCTGCATCTC
CTCA
                    5610       5620       5630       5640       5650       56
60
                       160        170        180        190        200
 210
Pagapr2.Dna     TTTCTGGTCCTCATCACTATCCCATCAGTCCCACATATCATCCCGGTCTGGCAACC
CCTT
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        TTTCTGGTCCTCATCACTATCCCATCAGTCCCACATATCATCCCGGTCTGGCAACC
CCTT
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20
                       220        230        240        250        260
 270
Pagapr2.Dna     CTGCTCGGCCCGACTTTACTACTGCTGACCTCCTTCTGTCACCCCACGTTACTATC
CAGC
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        CTGCTCGGCCCGACTTTACTACTGCTGACCTCCTTCTGTCACCCCACGTTACTATC
CAGC
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80
                       280        290        300        310        320
 330
Pagapr2.Dna     ACCTCTTTTCTCTGCCCACATTGCTACACTATACCACCTTCCTGTGCATTTTCTCC
GCCT
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||||
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Namnlös

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Hs271m21        ACCTCTTTTCTCTGCCCACATTGCTACACTATACCACCTTCCTGTGCATTTTCTCC
GCCT

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40

                     340        350        360        370        380
 390
Pagapr2.Dna     CAATCCCCTTTCCCAGCCCCACATTACTACCTCAATTACTCCCTTTTCTTGGTCCC
ACTT
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        CAATCCCCTTTCCCAGCCCCACATTACTACCTCAATTACTCCCTTTTCTTGGTCCC
ACTT
                    5850       5860       5870       5880       5890       59
00

                     400        410        420        430        440
 450
Pagapr2.Dna     TGCTGTCCAGATGATCTTATTAGCCTCCCTTTATCCTCCTATCCTAATTCAACTGG
AATA
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||| |
||||
Hs271m21        TGCTGTCCAGATGATCTTATTAGCCTCCCTTTATCCTCCTATCCTAATTCAACTCG
AATA
                    5910       5920       5930       5940       5950       59
60

                     460        470        480        490        500
 510
Pagapr2.Dna     TCCTCATTTAGCCTTTTTTTTTAAAGAAAAGCTCCACCCACATATCATACCCTTCA
TGAT
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        TCCTCATTTAGCCTTTTTTTTTAAAGAAAAGCTCCACCCACATATCATACCCTTCA
TGAT

                    5970       5980       5990       6000       6010       60
20

                     520        530        540        550        560
 570
Pagapr2.Dna     TTCTTAATTACTTTTCTTTCTTACCTCCACCCAGCACCCTTCCCTCCCCACTTGTG
GGTT
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        TTCTTAATTACTTTTCTTTCTTACCTCCACCCAGCACCCTTCCCTCCCCACTTGTG
GGTT

                    6030       6040       6050       6060       6070       60
```

```
80

                    580        590        600        610        620
 630
Pagapr2.Dna   CTCTCATCAGCTTTAACCCTGGCCCTTTACTCTCTGTCCTTTAGCCAGGGGATCTG
TACC
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      CTCTCATCAGCTTTAACCCTGGCCCTTTACTCTCTGTCCTTTAGCCAGGGGATCTG
TACC
                  6090       6100       6110       6120       6130       61
40

                    640        650        660        670        680
 690
Pagapr2.Dna   TGTCCCCACTCCCACCCTCTAGTGCCCCATCCCTCTTCCTCTGTCCCCAGCCTGCC
CACA
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      TGTCCCCACTCCCACCCTCTAGTGCCCCATCCCTCTTCCTCTGTCCCCAGCCTGCC
CACA
                  6150       6160       6170       6180       6190       62
00

                    700        710        720        730        740
 750
Pagapr2.Dna   GACCACGCCCTACTCTCCCCTTCCTCCCACTGGGGAGCCTGCCTTTTCCTCTTTCC
CACC
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      GACCACGCCCTACTCTCCCCTTCCTCCCACTGGGGAGCCTGCCTTTTCCTCTTTCC
CACC
                  6210       6220       6230       6240       6250       62
60

                    760        770        780        790        800
 810
Pagapr2.Dna   ATTCCTCTCTGTATGCCTCCCCGACTCACCCCTTAGGTTGCCAGATCATACACCCG
CCCT
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      ATTCCTCTCTGTATGCCTCCCCGACTCACCCCTTAGGTTGCCAGATCATACACCCG
CCCT
                  6270       6280       6290       6300       6310       63
20

                    820        830        840        850        860
```

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 870

Pagapr2.Dna   GGGAAGGGGGCATCAGGTACCGGGGCCTGACTCGGGACCAGGTGAAGGCTATCAAC
TTCC
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      GGGAAGGGGGCATCAGGTACCGGGGCCTGACTCGGGACCAGGTGAAGGCTATCAAC
TTCC
                   6330       6340       6350       6360       6370       63
80

                       880        890        900        910        920
 930
Pagapr2.Dna   TGCCAGTGGACTATGAGATTGAGTATGTGTGCCGGGGGGAGCGCGAGGTGGTGGGG
CCCA
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      TGCCAGTGGACTATGAGATTGAGTATGTGTGCCGGGGGGAGCGCGAGGTGGTGGGG
CCCA
                   6390       6400       6410       6420       6430       64
40

                       940        950        960        970        980
 990
Pagapr2.Dna   AGGTCCGCAAGTGCCTGGCCAACGGCTCCTGGACAGATATGGACACACCCAGCCGC
TGTG
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      AGGTCCGCAAGTGCCTGGCCAACGGCTCCTGGACAGATATGGACACACCCAGCCGC
TGTG
                   6450       6460       6470       6480       6490       65
00

                      1000       1010       1020       1030       1040
1050
Pagapr2.Dna   GTGAGTAGCCTCGGAAGCCCCTCCCCTCTTCAAGACTATTCCTTTTCCTGCCGCAA
ACTT
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      GTGAGTAGCCTCGGAAGCCCCTCCCCTCTTCAAGACTATTCCTTTTCCTGCCGCAA
ACTT
                   6510       6520       6530       6540       6550       65
60

                      1060       1070       1080       1090       1100
1110
Pagapr2.Dna   AGCATTACTGCTTGCAAGTCAGCACTTTAAATCCAGTATACCAAAATTCACAAATA
```

```
CATT
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        AGCATTACTGCTTGCAAGTCAGCACTTTAAATCCAGTATACCAAAATTCACAAATA
CATT
                     6570       6580       6590       6600       6610       66
20

                      1120       1130       1140       1150       1160
1170
Pagapr2.Dna     TATTGAATGACTACTACATAAGAGCAATTTTGCTCTGTGCGGTTGGAGGTAGTAGA
GCTA
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        TATTGAATGACTACTACATAAGAGCAATTTTGCTCTGTGCGGTTGGAGGTAGTAGA
GCTA
                     6630       6640       6650       6660       6670       66
80

                      1180       1190       1200       1210       1220
1230
Pagapr2.Dna     GCAGCCTGCACAGTTCATTTCATCCTCCCTTCATTAGGCCACTGATCATTGGCCTA
TAAC
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        GCAGCCTGCACAGTTCATTTCATCCTCCCTTCATTAGGCCACTGATCATTGGCCTA
TAAC
                     6690       6700       6710       6720       6730       67
40

                      1240       1250       1260       1270       1280
1290
Pagapr2.Dna     ATTGATAATTCATCTTGTCAGTTATTCTCTTTGAGGATCATTAGTGGCAGATGATG
ACAA
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        ATTGATAATTCATCTTGTCAGTTATTCTCTTTGAGGATCATTAGTGGCAGATGATG
ACAA
                     6750       6760       6770       6780       6790       68
00

                      1300       1310       1320       1330       1340
1350
Pagapr2.Dna     AAAAATTCTAAAATGATTTCATCACATTTTTGAATACCTCTGTCACCAACCCAGAG
ACCA
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
```

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Hs271m21        AAAAATTCTAAAATGATTTCATCACATTTTTGAATACCTCTGTCACCAACCCAGAG
ACCA

                     6810       6820       6830       6840       6850       68
60

                      1360       1370       1380       1390       1400
1410

Pagapr2.Dna     TATGCCCAAGAAACAAAAGCCAGTTTAATATTAATAGAAGCCAACTATAATAAGAA
AAGC

                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        TATGCCCAAGAAACAAAAGCCAGTTTAATATTAATAGAAGCCAACTATAATAAGAA
AAGC

                     6870       6880       6890       6900       6910       69
20

                      1420       1430       1440       1450       1460
1470
Pagapr2.Dna     AAATCTGATTGTGCATCCAAAGTTATATACATCTACATATTTCAAAGCCAGAGAAC
CGCC

                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        AAATCTGATTGTGCATCCAAAGTTATATACATCTACATATTTCAAAGCCAGAGAAC
CGCC

                     6930       6940       6950       6960       6970       69
80

                      1480       1490       1500       1510       1520
1530
Pagapr2.Dna     CACTGTAGCTGACTTTGAAGAGATCCCATTTTGTGTGCTTATAGCCCCATCTTGGG
TTCC

                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        CACTGTAGCTGACTTTGAAGAGATCCCATTTTGTGTGCTTATAGCCCCATCTTGGG
TTCC

                     6990       7000       7010       7020       7030       70
40

                      1540       1550       1560       1570       1580
1590
Pagapr2.Dna     TAAAATGGTAATTTTTTTTTTCTTTTGGGAATGTGTGGATGCTTGCACAGGTAAGG
GAGG

                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        TAAAATGGTAATTTTTTTTTTCTTTTGGGAATGTGTGGATGCTTGCACAGGTAAGG
GAGG
```

```
                    7050       7060       7070       7080       7090       71
00

                     1600       1610       1620       1630       1640
1650
Pagapr2.Dna   ATTGGAAGATAGGTAGGCAAATCCTTTTCACATGTGATTTTCTTTAGAGCAGGATG
CTTG
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      ATTGGAAGATAGGTAGGCAAATCCTTTTCACATGTGATTTTCTTTAGAGCAGGATG
CTTG
                    7110       7120       7130       7140       7150       71
60

                     1660       1670       1680       1690       1700
1710
Pagapr2.Dna   TGGACCCAAACCTGCACCTGAGTCCCCTGCTCTTTAAAGGGAAAGAGCCTTCTTCA
ACTC
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      TGGACCCAAACCTGCACCTGAGTCCCCTGCTCTTTAAAGGGAAAGAGCCTTCTTCA
ACTC
                    7170       7180       7190       7200       7210       72
20

                     1720       1730       1740       1750       1760
1770
Pagapr2.Dna   GCCTCTCTTCTTATTTTCCTATCTCTCCACAGTCCGAATCTGCTCCAAGTCTTATT
TGAC
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      GCCTCTCTTCTTATTTTCCTATCTCTCCACAGTCCGAATCTGCTCCAAGTCTTATT
TGAC
                    7230       7240       7250       7260       7270       72
80

                     1780       1790       1800       1810       1820
1830
Pagapr2.Dna   CCTGGAAAATGGGAAGGTTTTCCTGACGGGTGGGGACCTCCCAGCTCTGGACGGAG
CCCG
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      CCTGGAAAATGGGAAGGTTTTCCTGACGGGTGGGGACCTCCCAGCTCTGGACGGAG
CCCG
                    7290       7300       7310       7320       7330       73
40
```

```
                1840       1850       1860       1870       1880
1890
Pagapr2.Dna  GGTGGATTTCCGGTGTGACCCCGACTTCCATCTGGTGGGCAGCTCCCGGAGCATCT
GTAG
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     GGTGGATTTCCGGTGTGACCCCGACTTCCATCTGGTGGGCAGCTCCCGGAGCATCT
GTAG
              7350       7360       7370       7380       7390       74
00

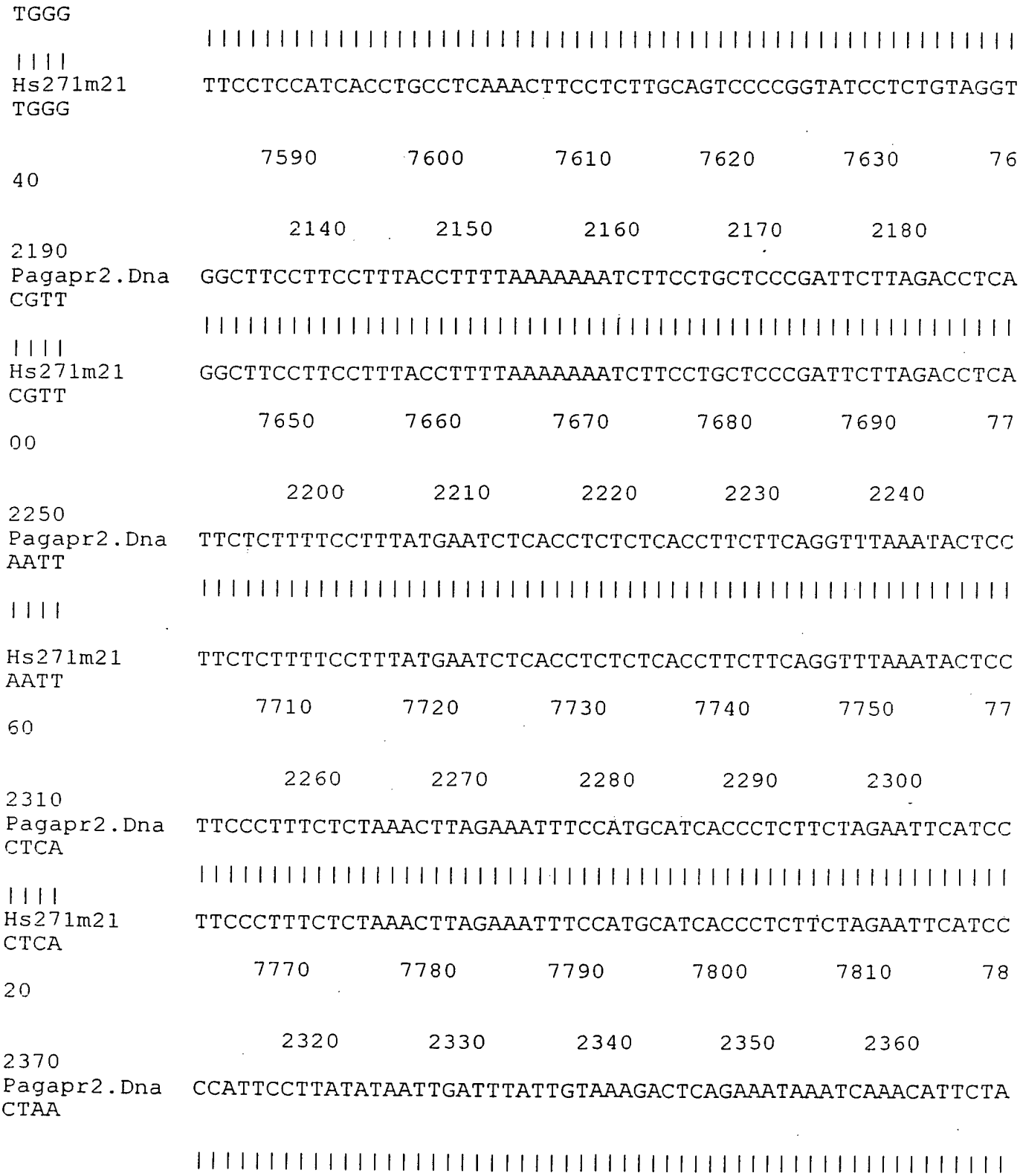
                1900       1910       1920       1930       1940
1950

Pagapr2.Dna  TCAGGGCCAGTGGAGCACCCCCAAGCCCCACTGCCAGGGTGAGGGGAACAGCTGCC
TGCA
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     TCAGGGCCAGTGGAGCACCCCCAAGCCCCACTGCCAGGGTGAGGGGAACAGCTGCC
TGCA
              7410       7420       7430       7440       7450       74
60

                1960       1970       1980       1990       2000
2010
Pagapr2.Dna  TGCAGCTGATGAGGACGCTTGTGTGAGGATGGGAGTGGGGTGGGAATGGATAATGG
GAAA
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     TGCAGCTGATGAGGACGCTTGTGTGAGGATGGGAGTGGGGTGGGAATGGATAATGG
GAAA
              7470       7480       7490       7500       7510       75
20

                2020       2030       2040       2050       2060
2070
Pagapr2.Dna  GAATGGAGAGCTATAAAAATGTGGGGGAGGACACTGGAAAGGGGAGATGAAAGTCC
CTTT
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     GAATGGAGAGCTATAAAAATGTGGGGGAGGACACTGGAAAGGGGAGATGAAAGTCC
CTTT
              7530       7540       7550       7560       7570       75
80

                2080       2090       2100       2110       2120
2130
Pagapr2.Dna  TTCCTCCATCACCTGCCTCAAACTTCCTCTTGCAGTCCCCGGTATCCTCTGTAGGT
```


TGGG
Hs271m21 TTCCTCCATCACCTGCCTCAAACTTCCTCTTGCAGTCCCCGGTATCCTCTGTAGGT
TGGG
7590 7600 7610 7620 7630 76
40
2140 2150 2160 2170 2180
2190
Pagapr2.Dna GGCTTCCTTCCTTTACCTTTTAAAAAAATCTTCCTGCTCCCGATTCTTAGACCTCA
CGTT
Hs271m21 GGCTTCCTTCCTTTACCTTTTAAAAAAATCTTCCTGCTCCCGATTCTTAGACCTCA
CGTT
7650 7660 7670 7680 7690 77
00
2200 2210 2220 2230 2240
2250
Pagapr2.Dna TTCTCTTTTCCTTTATGAATCTCACCTCTCTCACCTTCTTCAGGTTTAAATACTCC
AATT
Hs271m21 TTCTCTTTTCCTTTATGAATCTCACCTCTCTCACCTTCTTCAGGTTTAAATACTCC
AATT
7710 7720 7730 7740 7750 77
60
2260 2270 2280 2290 2300
2310
Pagapr2.Dna TTCCCTTTCTCTAAACTTAGAAATTTCCATGCATCACCCTCTTCTAGAATTCATCC
CTCA
Hs271m21 TTCCCTTTCTCTAAACTTAGAAATTTCCATGCATCACCCTCTTCTAGAATTCATCC
CTCA
7770 7780 7790 7800 7810 78
20
2320 2330 2340 2350 2360
2370
Pagapr2.Dna CCATTCCTTATATAATTGATTTATTGTAAAGACTCAGAAATAAATCAAACATTCTA
CTAA

```
|||| 
Hs271m21      CCATTCCTTATATAATTGATTTATTGTAAAGACTCAGAAATAAATCAAACATTCTA
CTAA

                 7830       7840       7850       7860       7870       78
80

                 2380       2390       2400       2410       2420
2430
Pagapr2.Dna   GAAAAATTGAGAAGGGGAGCTCTGGGGGTGGAAACATATTAGGGTAAAAGACTTAA
AATT
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
|||| 
Hs271m21      GAAAAATTGAGAAGGGGAGCTCTGGGGGTGGAAACATATTAGGGTAAAAGACTTAA
AATT

                 7890       7900       7910       7920       7930       79
40

                 2440       2450       2460       2470       2480
2490

Pagapr2.Dna   GGAGGCAGCATTATCAGAAGATGAAGAACAACTCAGGGATGGGGTGGGAAGAAGAC
AGGT
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
|||| 
Hs271m21      GGAGGCAGCATTATCAGAAGATGAAGAACAACTCAGGGATGGGGTGGGAAGAAGAC
AGGT

                 7950       7960       7970       7980       7990       80
00

                 2500       2510       2520       2530       2540
2550
Pagapr2.Dna   CCTTTTCTGKACTTCCTAGACAACCTCCATTATTCCCTAAGGGAATCAGTGTTGTG
TCTG
              |||||||||:||||||||||||||||||||||||||||||||||||||||||||||
|||| 
Hs271m21      CCTTTTCTGTACTTCCTAGACAACCTCCATTATTCCCTAAGGGAATCAGTGTTGTG
TCTG

                 8010       8020       8030       8040       8050       80
60

                 2560       2570       2580       2590       2600
2610
Pagapr2.Dna   TCTACYTTTTTTTTTTTTTTTTTGCCACGTAATTTTACAAACTCTCCCTTTTCTAG
GCAC
              |||||:||||||||||||||||||||||||||||||||||||||||||||||||||
|||| 
Hs271m21      TCTACTTTTTTTTTTTTTTTTTTGCCACGTAATTTTACAAACTCTCCCTTTTCTAG
GCAC
```

```
                8070       8080       8090       8100       8110       81
20

                2620       2630       2640       2650       2660
2670
Pagapr2.Dna     CCGAACTCTCTGCCATCTTCTCTCCTGGGATGCAGTCATCCCATTTGTATGCCTCA
TACT
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        CCGAACTCTCTGCCATCTTCTCTCCTGGGATGCAGTCATCCCATTTGTATGCCTCA
TACT

                8130       8140       8150       8160       8170       81
80

                2680       2690       2700       2710       2720
2730
Pagapr2.Dna     TCCTCTACCCTGGTAGATTCTTTCAAGATCCTTGGGCTTTACTTTCCTCACATAAC
TCAG
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        TCCTCTACCCTGGTAGATTCTTTCAAGATCCTTGGGCTTTACTTTCCTCACATAAC
TCAG

                8190       8200       8210       8220       8230       82
40

                2740       2750       2760       2770       2780
2790
Pagapr2.Dna     TTATTCTGCTTCTAGTTTACCATTTTATTCTGGAAATTGAGAGTCCCATCCAGGGG
TGGA
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        TTATTCTGCTTCTAGTTTACCATTTTATTCTGGAAATTGAGAGTCCCATCCAGGGG
TGGA

                8250       8260       8270       8280       8290       83
00

                2800       2810       2820       2830       2840
2850
Pagapr2.Dna     CTTATGACACTACTGAAACTTAGACTTCAAGGTTCCTCACCTACAGGGCCCTCTTC
CTGT
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21        CTTATGACACTACTGAAACTTAGACTTCAAGGTTCCTCACCTACAGGGCCCTCTTC
CTGT

                8310       8320       8330       8340       8350       83
60
```

```
                    2860       2870       2880       2890       2900
2910
Pagapr2.Dna  GCTCTAATAATATAGAGGGCTCGATGGATATGTGTTCATATGGTAACAGGCTTTTG
TAAA

                    |||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     GCTCTAATAATATAGAGGGCTCGATGGATATGTGTTCATATGGTAACAGGCTTTTG
TAAA
                    8370       8380       8390       8400       8410       84
20

                    2920       2930       2940       2950       2960
2970
Pagapr2.Dna  AATTGCAGAAATAAGATTTTAACAGCAATTGCTTAAAGCCAATTGTATGTGTAATT
TTTT

                    |||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     AATTGCAGAAATAAGATTTTAACAGCAATTGCTTAAAGCCAATTGTATGTGTAATT
TTTT
                    8430       8440       8450       8460       8470       84
80

                    2980       2990       3000       3010       3020
3030

Pagapr2.Dna  TTCTTAAAGACTCCCAATTTTGTAATATTCAGGCACCACAGAACCAAGATCTGCCC
CAAA

                    |||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     TTCTTAAAGACTCCCAATTTTGTAATATTCAGGCACCACAGAACCAAGATCTGCCC
CAAA
                    8490       8500       8510       8520       8530       85
40

                    3040       3050       3060       3070       3080
3090
Pagapr2.Dna  CTTAGCTATTGGCATTCCCGTCTCAAATTCTGTTGTCCTATGAAAAATCGAAGAAG
AAAA

                    |||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     CTTAGCTATTGGCATTCCCGTCTCAAATTCTGTTGTCCTATGAAAAATCGAAGAAG
AAAA
                    8550       8560       8570       8580       8590       86
00

                    3100       3110       3120       3130       3140
3150
```

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Pagapr2.Dna  TAAGTCCTGACCCCCTTACCCCCAGACCCACCTTGTTCTTATCCCCAGGCACCCTC
CCCT
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     TAAGTCCTGACCCCCTTACCCCCAGACCCACCTTGTTCTTATCCCCAGGCACCCTC
CCCT
                 8610       8620       8630       8640       8650       86
60

                   3160       3170       3180       3190       3200
3210
Pagapr2.Dna  CAGAAACGCAGGCTTCTGCTCTCCCCGGTCTTCAGCATGGACAGGTGTGGGAGGGG
GCTG
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     CAGAAACGCAGGCTTCTGCTCTCCCCGGTCTTCAGCATGGACAGGTGTGGGAGGGG
GCTG

                 8670       8680       8690       8700       8710       87
20

                   3220       3230       3240       3250       3260
3270
Pagapr2.Dna  GGGATCAGGCCAGGGAAGCTGGGCGCCAGTGGTAACTCTTCTCTGATCCCCGTCTT
TCCT
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     GGGATCAGGCCAGGGAAGCTGGGCGCCAGTGGTAACTCTTCTCTGATCCCCGTCTT
TCCT
                 8730       8740       8750       8760       8770       87
80

                   3280       3290       3300       3310       3320
3330
Pagapr2.Dna  GCTGCCAGTGAATCGAACGCCACACTCAGGTGAGATGAGAAACCCTTACCGCGCGC
ACTG
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||

Hs271m21     GCTGCCAGTGAATCGAACGCCACACTCAGGTGAGATGAGAAACCCTTACCGCGCGC
ACTG
                 8790       8800       8810       8820       8830       88
40

                   3340       3350       3360       3370       3380
3390
Pagapr2.Dna  CAATGCCCTCCCCTTCACTCTGCACCCTCCACCCCCCTGAAATTCTGCCCTTAGGC
TACG
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
```

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|||| 
Hs271m21      CAATGCCCTCCCCTTCACTCTGCACCCTCCACCCCCCTGAAATTCTGCCCTTAGGC
TACG

                   8850       8860       8870       8880       8890       89
00

                     3400       3410       3420       3430       3440
3450
Pagapr2.Dna   GGGCGTCGTCCTTTCGCACCTTCCCCAACCCACCCCAGTTTGCGGCCACCCCCTTC
CCTC

              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
|||| 
Hs271m21      GGGCGTCGTCCTTTCGCACCTTCCCCAACCCACCCCAGTTTGCGGCCACCCCCTTC
CCTC

                   8910       8920       8930       8940       8950       89
60

                     3460       3470       3480       3490       3500
3510
Pagapr2.Dna   CCTACCTGTTTCCTGCCTCCAGTCCCGGTTTTCCACGAGGCTGCGGTCTCTCCTTG
TCCC

              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
|||| 
Hs271m21      CCTACCTGTTTCCTGCCTCCAGTCCCGGTTTTCCACGAGGCTGCGGTCTCTCCTTG
TCCC

                   8970       8980       8990       9000       9010       90
20

                     3520       3530       3540       3550       3560
3570

Pagapr2.Dna   TGCTTGGCTACACTTCCCTGGGCTCCACCTCCTCCCAGACTGAGCCTCGCCGGTGT
CAGG

              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
|||| 
Hs271m21      TGCTTGGCTACACTTCCCTGGGCTCCACCTCCTCCCAGACTGAGCCTCGCCGGTGT
CAGG

                   9030       9040       9050       9060       9070       90
80

                     3580       3590       3600       3610       3620
3630
Pagapr2.Dna   CAGAGCCCAGCAGARGGCGGCAGGGTGCTGGGAGACCCTGAGCTCCCACCACGTTT
TCCC

              |||||||||||||||:||||||||||||||||||||||||||||||||||||||||||
|||| 
Hs271m21      CAGAGCCCAGCAGAGGGCGGCAGGGTGCTGGGAGACCCTGAGCTCCCACCACGTTT
TCCC
```

```
                 9090       9100       9110       9120       9130       91
40

                  3640       3650       3660       3670       3680
3690
Pagapr2.Dna   CTGTGGGGTTCCTTGCGACCTTCGCTGGAACCTTTTCCAGCCTGCTGCCTCCTAGG
ATTT
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      CTGTGGGGTTCCTTGCGACCTTCGCTGGAACCTTTTCCAGCCTGCTGCCTCCTAGG
ATTT
                 9150       9160       9170       9180       9190       92
00

                  3700       3710       3720       3730       3740
3750
Pagapr2.Dna   CACCTAATGGACTTTCTCAGCCTGTCCCACCCATCCCAACCCTGGCCAGGCCTCTC
GCGC
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      CACCTAATGGACTTTCTCAGCCTGTCCCACCCATCCCAACCCTGGCCAGGCCTCTC
GCGC

                 9210       9220       9230       9240       9250       92
60

                  3760       3770       3780       3790       3800
3810
Pagapr2.Dna   TCTTCCCCACATCTTTTCCTTCCGTGTACCCCTTCCCTCGTCTTTTCTCAATTCCA
TGTC
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      TCTTCCCCACATCTTTTCCTTCCGTGTACCCCTTCCCTCGTCTTTTCTCAATTCCA
TGTC
                 9270       9280       9290       9300       9310       93
20

                  3820       3830       3840       3850       3860
3870
Pagapr2.Dna   CTGTCTCCCTTTCTTAGGCTTCTGTCTACCCAGCCCCAGGCTCCCTTCCACGACCC
CACC
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||

Hs271m21      CTGTCTCCCTTTCTTAGGCTTCTGTCTACCCAGCCCCAGGCTCCCTTCCACGACCC
CACC
                 9330       9340       9350       9360       9370       93
80
```

```
                    3880       3890       3900       3910       3920
3930
Pagapr2.Dna  ACTCCCTCAAACCAGCCTCCCTTCCGTACCCAACTCGTTCCCTCCAAAACCGTTTC
CTCT
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     ACTCCCTCAAACCAGCCTCCCTTCCGTACCCAACTCGTTCCCTCCAAAACCGTTTC
CTCT
                 9390       9400       9410       9420       9430       94
40
                    3940       3950       3960       3970       3980
3990
Pagapr2.Dna  CCCCCACATCCTCAGTGCTTCACTGTATCGACTCATACTCCCACTTCAGACCTCAG
GCGC
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     CCCCCACATCCTCAGTGCTTCACTGTATCGACTCATACTCCCACTTCAGACCTCAG
GCGC
                 9450       9460       9470       9480       9490       95
00
                    4000       4010       4020       4030       4040
4050
Pagapr2.Dna  CAGCCCCGTTTCTCTCCCGTCCCACTCGCATCCTTCCCTTCCTACCCTGGTTCCTC
CGTG
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     CAGCCCCGTTTCTCTCCCGTCCCACTCGCATCCTTCCCTTCCTACCCTGGTTCCTC
CGTG
                 9510       9520       9530       9540       9550       95
60
                    4060       4070       4080       4090       4100
4110
Pagapr2.Dna  CTTCAGCCTCCCGCGGCTCCCTCCGCCCACCCCGCCCTCCTGGCACGCCCCGTCCC
CATT
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     CTTCAGCCTCCCGCGGCTCCCTCCGCCCACCCCGCCCTCCTGGCACGCCCCGTCCC
CATT
                 9570       9580       9590       9600       9610       96
20
                    4120       4130       4140       4150       4160
4170
```

```
Pagapr2.Dna  TCTCCTCCCCTCGGGTCCCCTTAAGTGAGATCCCTCCCTTCCTCTTTCGTTCCTTT
CCTC
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     TCTCCTCCCCTCGGGTCCCCTTAAGTGAGATCCCTCCCTTCCTCTTTCGTTCCTTT
CCTC
                 9630       9640       9650       9660       9670       96
80

                  4180       4190       4200       4210       4220
4230
Pagapr2.Dna  CTCGAGGTTGCATCCCCCCTCCCCTCCCCGCCCCTCCGACTGTCGCTCCCACCTCG
GCGC
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     CTCGAGGTTGCATCCCCCCTCCCCTCCCCGCCCCTCCGACTGTCGCTCCCACCTCG
GCGC
                 9690       9700       9710       9720       9730       97
40

                  4240       4250       4260       4270       4280
4290
Pagapr2.Dna  TCGCTTCCCTCCCCGCCCCCTTCCTGCCTCCCCAGCTCCCGCCCGCCCCCCCACCC
CCCG
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     TCGCTTCCCTCCCCGCCCCCTTCCTGCCTCCCCAGCTCCCGCCCGCCCCCCCACCC
CCCG

                 9750       9760       9770       9780       9790       98
00

                  4300       4310       4320       4330       4340
4350
Pagapr2.Dna  CTGCCGCGCGCCGCCCGTGACGTCAGAGCCCCCTCCCAGCCCCACATCTCCCTCCT
GCTC
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21     CTGCCGCGCGCCGCCCGTGACGTCAGAGCCCCCTCCCAGCCCCACATCTCCCTCCT
GCTC
                 9810       9820       9830       9840       9850       98
60

                  4360       4370       4380       4390       4400
4410
Pagapr2.Dna  CTCCTCCTCCCCTCCGTCGGTCAGTCAGTCCGCGAGGAGAGTCCGCGGTGGCGGCG
ACGG
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
```

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||||

Hs271m21      CTCCTCCTCCCCTCCGTCGGTCAGTCAGTCCGCGAGGAGAGTCCGCGGTGGCGGCG
ACGG

                  9870      9880       9890       9900       9910       99
20

                    4420       4430       4440       4450       4460
4470
Pagapr2.Dna   TGGCGAGAGCCGCGGGGGCCGTAGGAAGCCAACCTTCCCTGCTTCTCCGGGGCCCT
CGCC
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      TGGCGAGAGCCGCGGGGGCCGTAGGAAGCCAACCTTCCCTGCTTCTCCGGGGCCCT
CGCC
                  9930       9940       9950       9960       9970       99
80

                    4480       4490       4500       4510       4520
4530
Pagapr2.Dna   CCCTCCTCCCCACAAAATCAGGGATGGAGGCGCCTCCCCGGCACCCTCTTAGCAGC
CCTC

              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      CCCTCCTCCCCACAAAATCAGGGATGGAGGCGCCTCCCCGGCACCCTCTTAGCAGC
CCTC
                  9990      10000      10010      10020      10030      100
40

                    4540       4550       4560       4570       4580
4590
Pagapr2.Dna   CCCGGGAAAAGTGTCCCCCCTGAGCTCCTAACGCTCCCCAACAGCTACCCCTGCCC
CCCA
              ||| ||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||
Hs271m21      CCCAGGAAAAGTGTCCCCCCTGAGCTCCTAACGCTCCCCAACAGCTACCCCTGCCC
CCCA
                 10050      10060      10070      10080      10090      101
00


Pagapr2.Dna   CGCC

              ||||

Hs271m21      CGCCATGGGGCCCGGGGCCCCTTTTGCCCGGGTGGGGTGGCCACTGCCGCTTCTGG
```

TTGT

60

10110 10120 10130 10140 10150 101